


 Fertizona

GROWING SMARTER

News & Information To Help You Grow

Crop Rotation: So Many Choices. So Many Benefits.

When your body is lacking a vitamin or mineral you can almost always feel it, right? For example, if you haven't had enough iron you feel tired. "The ground is the same way," says Gene Kempton, seed manager at Fertizona. "If the soil is constantly feeding the same crop year after year, it becomes depleted of some of its nutritional requirements to produce a good crop." So it is important to keep rotating your crops.

So Many Choices

When it comes to following a silage corn crop, growers have many choices. "It is generally up to the grower," Kempton says. "If a grower gets a contract with one of the dairies for forage sorghum or sudangrass hay, then he will usually do that. If he doesn't, then he will wait and plant alfalfa or cereal grains."

Forage sorghum and sudangrass are both summer crops, and are planted in July and harvested in September or October.

If a grower doesn't have a contract with a dairy, he or she can let the ground go fallow until September

and plant alfalfa. "That is probably done quite a bit," Kempton says.

However, they are not the only options for growers. If growers want to leave their farms fallow longer, they may plant wheat in late fall or wait until the next spring and plant

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Rotating cereal grains, alfalfa and other crops with silage corn helps keep the soil viable.

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We're Making Sure You Don't Get Railroaded



Jim Compton, President, Fertilzona

There are many local and worldwide issues that affect supply and pricing of the products you use for your growing operation. One important issue that has a major affect on your supply line is the railroad. Of the two railroads in Arizona—Burlington Northern and the Union Pacific (UP)—the UP supplies all Fertilzona branches in Arizona except Fertilzona-Fennemore in west Phoenix.

Both railroads have received complaints regarding long delivery times, availability of cars and local

switching service. The railroads, especially Union Pacific, don't deny they have major service problems. In fact, they'll even admit it. They blame these service issues on having more business than they can handle right now. Unfortunately, in order for railroad service to improve, the end-user (you) is going to pay the price.

They're trying to improve service by adding people and equipment, but they think they need to reduce business in the short-term. You might ask how in the world can someone reduce business in a booming market. Easy—raising prices to decrease their customer base. This is what happens when you have a monopoly.

It used to take a railcar 2-4 weeks to get from Houston to Fertilzona facilities around Arizona. Now, it

can take double that time. You can reduce delivery time dramatically if you ship by truck, but that incurs a minimum \$30 per ton cost increase. Due to the unaffordable and impractical nature of this, the railroad is pretty much the only way to go.

To deal with this challenging issue, we've recently expanded our liquid fertilizer storage facilities and are currently in the process of increasing our dry bulk storage capabilities in order to take advantage of favorable off-season buying opportunities. These efforts will assure you of uninterrupted supply during the times you need it most. We want you to know that we acknowledge these problems and are doing everything we can to overcome some of the delivery shortfalls of the railroad.

Jim Compton
President, Fertilzona

Crop Rotation: So Many Choices. So Many Benefits (Continued From Page 1)

cotton or silage corn again. "There are a number of choices," Kempton explains.

Reaping The Benefits:

Crop rotation is very important because it keeps the ground balanced. "If you had corn, corn, corn you would be subject to the same diseases that affect corn, and you would get the same weed problems over and over again," Kempton says. "If you turn around and plant a different type of crop, then those diseases don't get built up in the soil as much."

Corn is a crop that puts very little organic matter back into the soil; so in order to keep the soil usable, other crops are needed. "Just like your

own diet," Kempton says. "If you eat the same thing day in and day out, your body is not going to function as well as if it had a balanced meal."

Not only does rotation help keep the soil balanced, but it also helps plants develop a natural resistance

to disease, weeds and insects.

Crop rotation is an integral part of sustainable long-term soil health. With the number of crops available in Arizona, growers should have no problem finding a viable crop. So many choices. So many benefits. ▲



Alfalfa is another rotation option for silage corn growers, which keeps the soil balanced.

PERFORMANCE PROFILE

Good Silage Corn Seed Selection Means More Green For Growers

What do you look for when selecting silage corn seed? Do you want a high-yielding variety that works well in tough soils? Is a wide harvest window important to you? If so, a NK® Brand silage corn variety may be just what you're looking for.

"NK4693 is a variety that has been doing very well in Arizona," says Ed Wentzel, owner of Western Ag Services. "This silage corn seed is high yielding and it handles difficult soils, making it perfect for our area."

Besides being able to manage sandy and high alkaline soils, Wentzel also explains that dairy farmers will appreciate this silage corn. "It's also very palatable—the dairy cows like it," he says.

Grower Approved

Growers have also taken to the NK4693 variety. David Treguboff is a silage corn grower in Goodyear, Arizona who has some experience with this variety.

AG TIPS

When seeking to obtain high yields on grain crops, the application of a good pre-plant fertilizer program is imperative. Fertizona can help provide these nutrients with a balanced SmartBlend® that will satisfy the needs of the plant through the growing season. Give your Fertizona field rep a call to check out what is available.

"The corn yielded very well," says Treguboff about NK4693. "We will plant it again next year. The dairy-men liked the quality of the silage."

Another substantial benefit of this variety is its stay-green and excellent performance record.

"The corn was 10 to 11-foot tall," adds Treguboff. "It eared well and had good stay-green."

"The NK4693 really stays green for a long time and has a wide harvest window," agrees Wentzel. "This variety also establishes quickly and produces a really good ear."

Another grower who can vouch for the success of NK4693 is Jake Dunn of Yuma, Arizona. He managed to yield 37 tons per acre with this variety.

"It had real good vigor," emphasizes Dunn. "It got tall and stood up well with no lodging. It stayed nice and green. I sold it to the local dairy and they liked it real well."

Flexible Planting

NK4693 can be planted early or late. Wentzel recommends that Arizona growers plant this variety



Pat Cockrill (left) and Gene Kempton of Fertizona recommend NK4693 for higher silage corn yields.

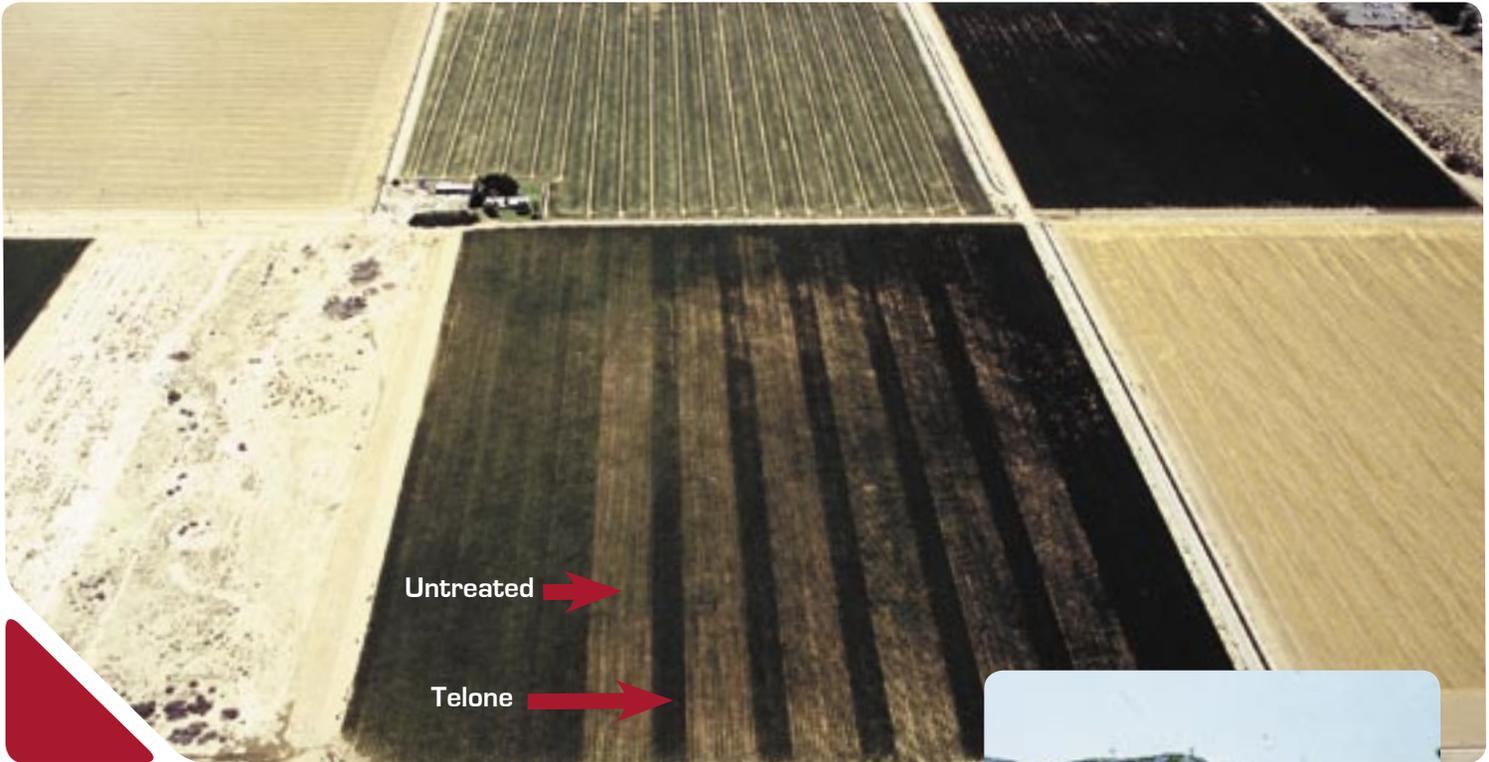
when soil temperatures at seed depth are at least 50-degrees Fahrenheit, with temperatures on an upward trend when you plant.

"It's not unusual for growers to plant at the end of February or early March," Wentzel explains. "NK4693 should be planted at a rate of 30,000-32,000 seeds per acre."

With the higher yields, a wide harvest window, good stay-green and usefulness with challenging soils, NK4693 is the perfect choice for Arizona silage corn growers.

"We have a long pedigree on it," Wentzel stresses. "It has been around for a good number of years, so we know what it will do." ▲

Nematodes In Cotton: Who Says What You



A test plot in Coolidge, Arizona shows a dramatic difference between Telone and untreated rows.

There's a very good chance you could be sacrificing cotton yields and income to a dangerous pest you've never even seen: nematodes.

Nematodes are microscopic, parasitic worms that live underground and, unfortunately, they thrive in the lighter, sandy soils of Arizona. By burrowing into cotton plants' roots and feeding on them, nematodes stunt the roots and cause them to deform. Without a strong, healthy root system, that cotton will struggle to absorb water and nutrients, which stresses the plants and limits their growth.

However, many growers never think they have a nematode problem, simply because the pests themselves are essentially invisible.

"You can't see them with the naked eye," explains Steve Husman, the University of Arizona Field Crops Extension Agent for Pinal and Pima Counties. "We take soil samples and run them through an extraction method in the laboratory, and count the nematodes we find under a microscope."

"Soil samples are the only way you can detect them," agrees Dr. Michael McClure, a Nematologist and Professor at the University of Arizona. "You have to extract them from the soils and identify them under a microscope. We have surveyed cotton in 113 townships in the cotton growing areas of Arizona, and every one of those had plant parasitic nematodes. We have done surveys of cotton, grape vines and other crops around the state, and virtually



Root Knot nematodes are hard to identify and can be devastating to cotton crops.

every acre that's cultivated has at least one species of nematode in it."

In Arizona, the two main nematode threats are the Lesion and the Root Knot species, each infesting about one-third of the state's cotton acreage. In some areas, though, the problem is bigger.

"In Maricopa County, the percentages ran as high as 55%," says Dr. McClure. "In other words, 55% of the cotton acres are infested with Root Knot nematodes."

Don't Know Can't Hurt You?

Benefits of Control

Naturally, any pest that significantly inhibits root development and plant growth is a serious concern and should be treated.

In extensive side-by-side testing on nematode-infested cotton, fields that were treated consistently produced much higher yields.

“Generally what we find is that the difference between the treated and untreated controls is around 15-25% field response,” says Agent Husman.

“If we can detect them in the field, we can get a response in cotton by controlling them,” continues Dr. McClure, “and the higher the numbers, the greater the response. We had one trial out on a farm with third-year cotton on it, and we applied a product called Telone® (soil fumigant). We got a 640-pound lint increase on that treated cotton. At 70 cents a pound, if you have a couple thousand acres, that’s significant.”

Dr. McClure points out that the longer a field stays in cotton, the worse the problem can become. Root Knot nematodes have a 10:1 reproduction ratio, and they can live on thousands of kinds of host plants.

“Once you’ve got them, it’s really an annual thing to manage,” he says. “And you’re going to have them forever, essentially.”

Rotating from cotton to small grains can help, Husman adds, but it won’t always eliminate the threat.

“A grain rotation isn’t enough to completely wipe them out,” he says. “It takes two years of sitting out of cotton, or more, to really not notice a problem in your next cotton crop.”

Effective Treatment Option

One excellent way to control nematodes and limit their damage is with Telone, a labeled soil fumigant available through Fertizona. Applied two to three



Controlling nematode problems in cotton can result in substantial yield increases at the end of the season.

weeks before planting, Telone is injected into the soil with big shanks. There it works as a true fumigant, going from a liquid to a gas state, and kills nematodes in the critical top 12-8 inches of soil. Then it dissipates quickly.

“After a short waiting period, when the new seeds are planted, you don’t have all those nematodes there to attack the roots as they start growing,” explains Steve Fleming, a Telone Specialist with Dow AgroSciences Company. “That enables young plants to send down a really healthy root system.”

To test the effectiveness of Telone fumigant on Root Knot nematodes, the University of Arizona conducted

a three-year study of numerous cotton fields in Pinal County. In every case, Telone showed yield increases compared to untreated acres, often as much as 20% or more. In one instance, fields with the Telone application produced a net ROI (return on investment, based on \$.70/lb. cotton) of an additional \$281.00 per acre!

“They literally weighed the cotton from the treated and untreated plots, and had hundreds and hundreds of more pounds per acre,” Fleming recalls. “And when you stood on the road and looked at the field, you could see big, vigorous, lush dark green plants as opposed to the sickly untreated ones.” (see picture on opposite page)

Clearly, Telone controlled the nematodes and gave that treated cotton a much better opportunity to grow and yield to fuller potential. Another advantage is that when healthier plant roots can absorb and utilize moisture more efficiently, they need less water, which is always important in Arizona.

For more information about nematodes or Telone, ask your Fertizona field rep. Once you see the difference, you’ll want nematode control.

“Out in the Buckeye area, those producers have known for years and years they have nematodes, and in essence they don’t farm cotton without Telone,” adds Husman. “That’s just a given.”

Telone is a registered trademark of Dow AgroSciences LLC.

Lettuce Growers Have Many Choices For Pest Control

Gordon Goodwin is no stranger to lettuce. As a Fertizona-Yuma field rep, Goodwin helps his growers with all types of lettuce varieties—and all types of pests.

“The first pest problems Yuma lettuce growers typically face in the fall are crickets,” explains Goodwin. “Usually Diazinon or Permethrin applied at emergence takes care of cricket problems.”

Goodwin also advises growers to keep an eye out for Armyworms, Western Flower Thrips, Whiteflies and Aphids.

“For Armyworm control in lettuce from 2-4 leaves, growers can apply 4-6 ounces per acre of Success® insecticide, and for lettuce with 6-8 leaves, Intrepid® insecticide works well at 4-10 ounces per acre,” Goodwin adds. “I recommend a surfactant like Ferti-Stik for applications of Intrepid insecticide.”



There are many crop protection products that can treat lettuce pests.

According to Goodwin, Western Flower Thrips and other pests can be treated with 6-10 ounces of Success and a Pyrethroid, or 0.75 lbs. per acre of Lannate® with a Pyrethroid.

“Whiteflies can be treated effectively early on with an application of Admire® insecticide injected with the planter at 12-20 ounces per acre,” says Goodwin. “Aphids are usually treated with 1-1.4 quarts of Endosulfan insecticide or 3.75 ounces per acre of Provado® insecticide.”

In addition to insects, downy mildew can plague lettuce crops, especially in cool and wet conditions caused by excessive irrigation practices. A white fluffy growth underneath the leaf is a telltale sign of downy mildew. “A preventative fungicide that has been shown to prevent downy mildew is Manex® fungicide, which should be tank mixed with 32-64 ounces per acre of Ferti-pHite (0-28-26),” Goodwin adds. “Powdery mildew can become a problem later in the season, and can be treated with 4-8 lbs. per acre of Microthiol® Dispers®.”



Gordon Goodwin is a Fertizona-Yuma field rep who specializes in lettuce.

Weed problems can also hinder lettuce crops. Goodwin recommends Kerb® herbicide, Prefar® herbicide and Balan® herbicide for pre-emergent weed control. For post-emergent grass-type weed control, lettuce growers have found Poast® herbicide and Select® herbicide useful.

In addition to a proactive crop protection program, Goodwin urges lettuce growers to pay attention to tillage, ground preparation and crop rotation. “If lettuce growers keep an eye on these issues and work closely with their Fertizona rep, they will be ahead of the game with their lettuce program.” ▲

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TURF TIPS

Turfgrasses that tend to stay yellow in color, even with good fertilizer programs, are likely to be growing in soils that have high pH levels. This problem can tie up very important nutrients that the plant needs. Fertizona field reps can help with suggestions to cure this problem.

MEET YOUR REP



Ben Hoyler has a lot of knowledge about cotton.

Ben Hoyler: The True Cotton Man.

Ben Hoyler refers to himself as “the cotton man.”

“I love cotton,” Hoyler says. “It is my favorite crop. It falls right into what I like to do. I grew up on a farm in Willcox, Arizona, where we raised mostly cotton and sugar beets.”

Hoyler has been a Fertizona field rep for six years, but has been involved in the industry for 26 years. Although Hoyler loves cotton, he also works with grain and alfalfa. “Whatever crops my growers have, I can do,” he says. Hoyler covers

growers in Pima County and south-east Pinal County.

He works hard to be as up-front and timely as possible with his information, so his growers can make accurate decisions on the methods they use to keep their crops pest free. “I spend a heck of a lot of time in the fields, working to be as honest and precise as I can,” he says.

The Whole Package

Hoyler is involved in the cotton growing process from start to finish. His job entails consulting with his growers, setting up fertility and herbicide programs, scouting for insects and recommending insecticides. “I help handle it from coming out of the ground until the time we defoliate it and get it out of the field,” Hoyler says. “I am a full-service guy.”

When evaluating the fields, Hoyler says it is mostly visual. “If fruit is laying on the ground, it is a good sign you have a problem,” he says. He also uses sweep nets to sweep

bugs and checks terminals for insect eggs and other damage.

Hoyler’s cotton season starts in mid-February and ends about the last week of October. “My season begins a little before planting because we do pre-plant herbicides for cotton,” he says.

The growers mainly use Bollgard® and Roundup Ready® cotton seed. Use of Bollgard reduces sprays from about 6-8 a year to 2-3 a year.

Family Time

“Whatever spare time I have, I spend with my wife Lisa and my children,” Hoyler says. “I have a son, Kyle, in high school, and I help coach his baseball team. I also have a daughter in Middle School, Jordan, who runs track and cross country, so I spend as much time as I can with her doing that.” Other than that the only other spare time he can find is to occasionally take his son bow hunting. ▲



Ben Hoyler (right) enjoys spending time with his son Kyle and his daughter Jordan.

Bollgard and Roundup Ready are registered trademarks of Monsanto.

FERTIZONA LOCATIONS

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Gene Kempton—Seed Products
Jimmy Compton—Crop Nutrition
Lamont Lacy—Credit Manager
Larry McGee—Lawn & Garden
Barbara West—Controller

Fertizona—Buckeye

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